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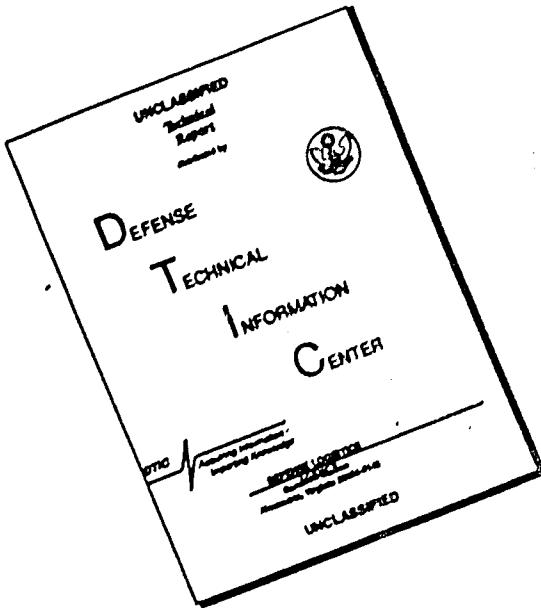
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**DEPARTMENT OF THE ARMY  
HEADQUARTERS, UNITED STATES ARMY VIETNAM  
APO SAN FRANCISCO 96375**

AVHGC-DST

17 MAR 1969

**SUBJECT: Senior Officer Debriefing Report**

**Assistant Chief of Staff for Force Development  
Department of the Army  
Washington, D. C. 20310**

1. Attached are three copies of the Senior Officer Debriefing Report prepared by MG Robert R. Williams, Commanding General of the 1st Aviation Brigade and concurrently, HQ USARV Aviation Officer, for the period 16 September 1967 to 20 March 1969.
2. MG Williams is recommended for debriefing by the DA staff and as a candidate guest speaker at appropriate service schools and joint colleges.

**FOR THE COMMANDER:**

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as (trip)

*t. J*  
C. D. WILSON  
III, AGC  
Assistant Adjutant General

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**DEPARTMENT OF THE ARMY**  
HEADQUARTERS 1ST AVIATION BRIGADE  
APO SAN FRANCISCO 96384

01 MAR 1969

SUBJECT: End of Tour Debriefing Report (U)

Commanding General  
United States Army Vietnam  
ATTN: AVHGC-DST  
APO 96375

References:

- a. Letter, Headquarters, U.S. Army Vietnam, AVHAG-PO, subject: Senior Officer Debriefing Program, dated 17 June 1968.
- b. AR 1-26, Senior Officer Debriefing Program (U), dated 9 November 1966.
- c. USARV Regulation 1-3, Senior Officer Debriefing Program (U), dated 1 June 1968.

1. (C) The report contained herein responds to paragraph 1, reference 2. As specified in paragraph 5a(1)(2), reference c, the report is tailored to reflect the operational environment and personal experiences applicable to my assignment as Commanding General, 1st Aviation Brigade and concurrently as Aviation Officer, USARV during the period September 1967 through March 1969. In terms of format, each of the following paragraphs addresses a specific topic. In the interest of brevity and emphasis, I have elected to cover only those subjects that I consider of major significance applicable to "other Vietnams" that may occur and which have not, to my knowledge, been brought out in other reports.

2. (S) THE ROLE OF ARMY AVIATION IN COUNTERINSURGENCY.

- a. Army Aviation companies were the first U.S. Army units to be committed in Vietnam. The first two companies arrived in December 1961. A major buildup of Army Aviation units, including all types of aircraft, took place during the period 1962 to 1965 to support the Army of Vietnam (ARVN). These Army Aviation units were obtained by stripping U.S. divisions of their organic aircraft and deploying all available separate aviation companies. As a result, when U.S. units began deploying to Vietnam in 1965, they came initially without their aircraft.

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b. The arrival of other Free World Forces in Vietnam increased the demand for U.S. Army Aviation. The Korean divisions arrived with a few O-1 type aircraft, but no helicopters. A limited number of helicopters have now been added to the Korean forces, however, they are still totally dependent on the U.S. Army for gunships, assault lift, movement of artillery and resupply. The Australian Forces arrived with a few Army O-1's and OH-13's and supported by a unit consisting of 12 UH-1's flown by the Australian Air Force. They are still totally dependent on the U.S. Army for gunship support, movement of artillery and resupply. Although the Australian Air Force unit is used extensively to insert and extract LRP's, the Australian Task Force is still dependent on the U.S. Army for most combat air lift. The Thai forces also brought O-1 and OH-13 aircraft to Vietnam and the Thai Army has some UH-1's, however, there is no plan to bring these UH-1's to Vietnam. The Thais, like the other Free World Military Forces, are supported by U.S. Army Aviation.

c. Aviation units are long-lead-time organizations. With maximum effort by Department of the Army to obtain aircraft and train pilots, the aviation assets in Vietnam have never met the stated requirements. The buildup of aviation during the past four years has lagged behind the buildup of forces by approximately one year. Artillery units, for example, are just now beginning to receive their aircraft.

d. In future "Vietnams", it should be anticipated that the first requirements will be for U.S. Army Aviation support of the indigenous forces. It should also be anticipated that any Free World Forces will require at least augmentation with U.S. Army Aviation and in many areas complete support. An Army Aviation Organization, consisting of Air Cavalry, Reconnaissance Aircraft, Assault Helicopter, Assault Support Helicopter and maintenance and supply units with command and control headquarters, should be included in the force structure of the Strategic Army Strike Force. This Army Aviation organization should be identified and programmed specifically for the support of non U.S. Forces.

3. (S) ARMY AVIATION IN THE MILITARY FORCES OF OUR ALLIES.

a. Creating and maintaining the Army Aviation discussed in paragraph 2d will be expensive in equipment and manpower and would be unnecessary if all of our allies' Military Forces were self-sufficient and properly organized in supporting aviation. In the case of our more affluent and sophisticated allies, this should be our mutual goal. In other cases, technical competence of their military establishment may dictate continued dependence on U.S. support the only solution. In all cases, the traditional roles-and-missions controversy between all Armies and Air Forces will be bothersome and in some cases defeating in attempts to provide aviation comparable to U.S. Army Aviation in other military forces. For example, Australia can afford Army Aviation; almost all of the types of aircraft operated by the U.S. Army are included within Australian military forces. The Australian

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Army, however, is not authorized to obtain UH-1's or larger type helicopters; the Air Force operates the UH-1's. This precludes the formation of Air Cavalry troops where LOH's, gunships, UH-1's and infantry troops must be integrated into a single unit. The Korean Army and the Thai Army have, or are scheduled to receive both observation helicopters and UH-1's. They have the ingredients (with the exception of gunships which will be discussed later) and the technical competence to develop self-sufficiency in Army Aviation. U.S. Army guidance and encouragement will be required. In the case of the Republic of Vietnam Armed Forces (RVNAF), all aircraft are in the Vietnamese Air Force (VNAF). The plan to expand the VNAF helicopter program to 12 UH-1 and 1 CH-47 squadrons has, in my opinion, several weaknesses. Retention of all aircraft in the VNAF precludes formation of air cavalry units which are combined arms units containing infantry and which must be organic to the Army to accomplish the reconnaissance mission. No observation or utility helicopters have been programmed for reconnaissance, artillery adjustment or command and control. The requirement for such aircraft organic to the Army is recognized in almost every modern Army in the Free World.

b. In the interest of reducing future U.S. Army requirements for maintaining aviation units to support our allies in counterinsurgency operations and to improve the effectiveness of the ally's Armies, the U.S. Army should exert strong pressure to develop a self-sustaining aviation capability wherever practical in the Armies of the Free World. Each nation must be analyzed individually on a cost/risk basis with due consideration of political implications.

#### 4. (S) GUNSHIPS.

a. The helicopter gunship has proven to be one of the most effective weapons systems in Vietnam. The Army stood alone in developing and proving the helicopter as a satisfactory gun platform. The U.S. Air Force and U.S. Marines are on record over an extended period of time opposing the helicopter as a gunship. As a result, all of the weapons systems used on the UH-1B/C and the only aircraft specifically designed as a gunship, the AH-1G, were produced against U.S. Army requirements. The gunship is now recognized as a highly valuable weapons system and desired by all services in Vietnam. The Air Force has obtained Army weapons systems and installed them on Air Force helicopters. The Navy has successfully used borrowed Army UH-1B's for Market Time and continues to make strong representation for additional gunships. The Marines have armed their UH-1E's and are now programmed to receive AH-1G's procured for the Army.

b. The Army can view with considerable pride its contributions to the effectiveness of all services by developing the gunship. The Army should at the same time view with some apprehension, the future world-wide requirement for gunships, vis-a-vis, the probable assets.

c. Gunships have not been programmed for the Korean Army, Thai Army or Australian Air Force. These and probably many other countries programmed to receive UH-1's will require gunships if they are to employ effectively the UH-1's as lift ships in combat. USARV provides gunships on a mission

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basis to work with the Australian Air Force UH-1's. Eight gunships have been planned in each of the 12 VNAF UH-1 squadrons; however, the source has not been identified. At this time VNAF helicopter squadrons participating in combat operations are being supported by U.S. Army gunships. There are indications the U.S. Marines will expand their use of gunships possibly to include air cavalry troops for support of their divisions. The U.S. Navy may continue or expand "Game Warden" type operations. In summary, the world-wide requirement for gunships probably will be quite large.

d. The present and programmed asset position on gunships will not support an expanded requirement. In USARV at this time, there are 842 gunships consisting of 473 war weary UH-1B/C's and 369 AH-1G's. This represents the Army's total inventory with the exception of those in the training base and those being rebuilt in CONUS. UH-1B/C and their weapons systems are no longer in production. The U.S. Army program is based on meeting future U.S. Army gunship requirements with AH-1G's and AH-56's.

e. The problem of meeting future requirements for gunships can be illustrated by examining the possible sources of aircraft to provide each of 12 VNAF squadrons with 8 gunships. The alternatives are as follows:

(1) Withdraw UH-1B/C from the Army: There is no indication that the UH-1B/C's will become excess to Army requirements in the foreseeable future. The UH-1B/C's and their weapons systems are war weary and will be difficult to support for any extended period of time in the VNAF.

(2) Provide UH-1H's modified as gunships: This will require the same weapons systems as the UH-1B/C which are out of production with only sufficient numbers in inventory to support the UH-1B/C's. There is considerable reluctance to convert aircraft designed for transporting troops and cargo into gunships.

(3) Provide AH-1G's: This is an expensive solution and not programmed by the Air Force in the MAP program. Accomplishment on the desired time schedule would probably require diversion of AH-1G's programmed for the U.S. Army.

f. Extending the problem of providing gunships to the VNAF to the many other potential requirements discussed in (c) above, presents the strong possibility that the Army's gunships will be dissipated to meet many unprogrammed requirements. Diversion of Army gunships to meet U.S. Navy and U.S. Marine requirements has already occurred.

5. (S) COUNTER AIR OPERATIONS.

a. Enemy employment of aircraft within the Army area of operations has been limited to the possible use of a few helicopters. The visual and radar siteings of what are believed to be enemy helicopters and actions taken by U.S. Forces contains some lessons and food for thought.

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b. At 162055H June 1968 a report was received that ten unidentified helicopters had been sighted by radar six kilometers north of the Ben Hai River. During the remainder of the night of 16-17 June 1968, numerous reports were received of enemy helicopters operating in the vicinity of the DMZ. It was reported that many of the enemy helicopters were destroyed by USAF aircraft and by artillery.

c. At 162243H June 1968, 7th Air Force TACC dispatched a message stating that all aircraft, helicopter and fixed wing, operating in the I CTZ area would be under positive Air Force radar control.

d. Compliance with the Air Force TWX was impractical since it would almost stop ground operations, emergency resupply and medical evacuation in I CTZ. The Air Force did not have a control means to handle even a portion of the 1,000 aircraft that were in I CTZ. The Air Force message was ignored by the Army and the Marines.

e. The Air Force started a major operation to cope with the enemy helicopters. A meeting was held at III MAF to discuss the services' positions and problems in this matter. The Marines and Army took similar positions, basically, that stated in paragraph (d) above. The Air Force identified one of their problems as that of identifying low slow-flying aircraft.

f. As time passed and further investigations were conducted, it developed that no definite evidence was available to confirm that any enemy helicopters had been shot down or destroyed on the ground. This raises the question of whether or not a jet is an effective weapon against a low flying helicopter.

g. From 24 September 1968 through the present date, there have been many reported sightings, both on radar and visually, of aircraft and possible aircraft in II CTZ. Visual sightings have included two sightings of a Czech NC-2 training helicopter, one sighting of a Soviet KA-18 (Hog) and one sighting of a Soviet YAK-24 (Horse). Over twenty radar sightings have been recorded during a single night: a certain amount of duplication has probably occurred, as the same aircraft could well have been reported more than once by separate sources.

h. In the case of the aircraft in II CTZ, a more deliberate, coordinated approach to detection and interception has been taken than in the previous case in I CTZ. A restricted area has been established during the hours of darkness that will not be entered by friendly aircraft without prior clearance. Hawk radar has been moved in to supplement the other radars in the area. Air Force and Army aircraft are on standby or patrol to attempt interception and identification. Coordination between Army and Air Force participating units has been well established.

i. No successful intercepts and identification have been made. This confirms the lesson learned in I CTZ that low flying aircraft are difficult

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to identify. This raises the interesting point of what is the enemies capability or our capability against a sophisticated enemy to penetrate with helicopters at night for reconnaissance or for attacks by fire against installations.

j. The second lesson learned is that the natural response of the agency responsible for air defense action, Army or Air Force, in the face of an enemy air threat will be to impose positive control of all friendly aircraft. Except in areas such as the portion of II CTZ declared a restricted area at night and where there is little requirement for friendly air operations, the imposition of positive control will very seriously curtail ground operations. This poses the interesting question for writers of doctrine and Theater Commanders of what level and nature of enemy air threat justified restrictions on the operation of Army aircraft and what should the restrictions be.

6. (S) COMMUNICATIONS.

a. Combat operations involving Army aircraft are characterized by speed, spontaneity and flexibility. Rapid, concise, dependable radio communications are vital. An assault helicopter company, a fire team, or an individual aircraft may support several ground units during a day. In case of heavy enemy contact, the support may be on very short notice. When a unit or individual aircraft is sent to or diverted in flight to support an operation, the supported unit must know on the first radio call from the aircraft what support can be given. For this reason the separate Army Aviation units do not change their call signs.

b. When the supported unit on the ground in contact receives a call from an aircraft time does not permit researching an SOI to determine if he is talking to a flight of lift aircraft, a gunship, a med evac aircraft, or an O-1. From a practical viewpoint, the ground units couldn't carry and maintain an SOI that covered all the aviation units that might support them. The alternative would be for the aircraft to call in and say "This is \_\_\_\_\_ a light fire team". This would provide the enemy as much information as the use of a traditional call sign.

c. The continuous use of traditional call signs by the separate aviation units, with distinctive call signs used for their gunships, provides to the ground commander and other participating aviation units a ready means of identification of not only the type of aircraft, but also the capability to include, in many cases, the crews familiarity with the tactical situation. This considerably improves coordination and reduces radio transmissions at critical times.

d. The best solution to continuing the efficiency and effectiveness of traditional call signs and obtaining desired security is use of the KY-28.

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When all units are quipped and personnel indoctrinated in its use, there should be no requirement to change call signs. One problem will still remain. At this time each division uses a separate key. All units in an operational area must use the same key or means be found for aviation units to rekey in flight.

7. (C) OPERATION OF AIRFIELDS.

a. Under the title of operation of airfields are included establishment of all types to include tactical airstrips, the physical organization of airfields used on a continuous basis, maintenance of runways and air and ground traffic control.

b. The Army is responsible for the operation of approximately 121 of the 150 established airfields that are jointly used in Vietnam. During CY 67 a major controversy over safety on Army operated airfields continued between 7th Air Force and USARV. In excess of 100 Operations Hazard Reports were submitted by 7th Air Force.

c. The primary problem is that the means (real estate, funds, material and people) are not available to create and operate aviation facilities that would meet CONUS prescribed or MACV desired standards. Accomplishment of the mission in Vietnam dictates operation under marginal conditions. On many airstrips space does not exist to park helicopters and land large fixed wing aircraft simultaneously. These facts are recognized by the 834th Air Division (operators of all USAF C-130, C-123 and C-7 aircraft in Vietnam) and by USARV. Major joint effort started in 1968 and is continuing by the 834th Air Division and USARV to improve operations and to minimize risks. Coordination means were formalized in September 1968 by establishment of a Joint Operations Group to identify and study problems and recommend solutions.

d. The role of the control tower operators in all services is particularly sensitive. At major airfields in CONUS where control tower operations exist, the operators are normally experienced personnel, working short shifts in comfortable conditions and control a reasonable volume of traffic on a facility designed to assure safe separation of landing, taking off, taxiing and parking aircraft. By contrast, the control tower operators in Vietnam are relatively inexperienced, frequently operate from a position that does not provide a view of all operating areas, and control high density traffic on very congested airfields.

e. Based on the success achieved by USARV and the 834th Air Division in improving air operation safety through the Joint Operations Group MACV raised the Joint Operations Group to MACV level and included the Navy and Marines in the membership.

f. It should be anticipated that a comparable airfield problem will exist in "other Vietnams". The requirement for a joint operations group should be recognized and incorporated early during the buildup of forces.

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8. (C) AIRCRAFT SURVIVABILITY.

a. The Department of Defense has in the past invested millions of dollars in studies and tests to predict the comparative survivability of various existing and proposed aircraft. Primary attention has been focused on speed, altitude, maneuverability, stand off capability and armor protection as the factors that influence survivability.

b. As in previous conflicts, the survivability of aircraft has been much better than predicted. For example, studies will show that a UH-1 flying at 1500 feet at 90 knots would be a sure kill by 50 cal. machine guns. Some UH-1's have been shot down by 50 cal. machine guns, but certainly they represent a small portion of those that have been exposed. Small, slow, fixed-wing aircraft and helicopters have survived very well in the same area where fast jets have been shot down.

c. The answer to this deviation from conclusions of past studies is that there has been no practical way for the studies to include realistically the factors of the effect on the enemy of suppressive fires, his motivation and reluctance to take an aircraft under fire and the ability of aircraft to avoid the most probable areas of hostile fire and still accomplish the mission. Of all of these factors the motivation of the enemy is probably the most important. For example, he is far less likely to fire on a slow, low flying aircraft that is looking for him than at a fast aircraft at higher altitude where detection of his position would be unlikely.

d. A great mass of data has been collected and stored in data banks covering in detail aircraft hits. Combining this data, which records actual aircraft survivability, with military judgments of the men who were there as to why aircraft were or were not hit, could give a new insight into survivability. This new approach could materially influence the statements of characteristics for future aircraft. This would be an appropriate task for the Weapons Systems Evaluation Group.

9. (U) As stated in the second paragraph, this report is limited to a discussion of major items that have not been covered by other means. The operation of Army aircraft in Vietnam is covered in great detail statistically in required reports to higher headquarters. The operational lessons learned will be reflected in the 1st Aviation Brigade Operations Guide now at the printers. The doctrinal lessons in the employment of aircraft can best be presented by the users. The most important of these, the potential of air cavalry, has been covered in many personnel reports by the division commanders. Commanders of all levels will take with them to their future assignments, the lesson they have learned in the employment of aviation. I consider the

above more than adequate coverage of the performance of Army Aviation in Vietnam and a sound basis for its future development.

*Robert R. Williams*  
ROBERT R. WILLIAMS  
Major General, USA  
Aviation Officer

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